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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

Reply To
Attn Of: ECL-115

January 6, 2009

Arya Behbehani-Diver
Portland General Electric
121 SW Salmon Street
3WTCBR05
Portland, Oregon 97204

Re: EPA Recommendations for Phase 2 Sampling
Harbor Oil Site

Dear Ms. Behbehani-Diver:

The United States Environmental Protection Agency has reviewed the Voluntary Group's proposed Phase 2 sampling needs and the Voluntary Groups response to EPA comments on the Preliminary Site Characterization Report and Risk Scoping Memorandum. Attached are concerns that EPA believes should be addressed during phase 2 sampling.

Please contact me if the Voluntary Group does not agree to the proposed approach, or to discuss these concerns. I can be reached at (206) 553-1478.

Sincerely,

Christopher Cora
Project Manager

Enclosure

cc: Ted Buerger, USFWS
Brian Cunningham, Confederated Tribes of Warm Springs
Tom Downey, Confederated Tribes of Siletz Indians
Mike Karnosh, Confederated Tribes of the Grand Ronde
Mavis Kent, ODEQ
Rose Longoria, Confederated Tribes and Bands of the Yakama Nation

Erin Madden, Nez Perce Tribe
Rob Neeley, NOAA
Allison O'Brien, DOI
Mark Stephan, HOCAG

Preliminary Site Characterization Responses

Response # 1, to Specific Comment # 30: The VG response to EPA's request for obtaining subsurface sediment data in Force Lake does not address the task of characterizing extent of contamination at the Site. The data demonstrates there are COPC's present in surface sediments which exceed screening levels for ecological and potentially human health. The citation referenced (EPA 2001) (not in references section)) implies that the Remedial Investigation is not focused on "historical contamination". This is incorrect. The most significant known releases occurred nearly three decades ago, and numerous prior spills from the facility have been recorded. These prior releases may have impacted sediments in Force Lake which are now below the surface layer. A primary requirement for completing a remedial investigation is to characterize the nature and extent of contamination. Without any subsurface sediment data, the extent of contamination in the subsurface can not be characterized. This data would be needed to estimate sediment volumes potentially requiring excavation (or controls on disturbance of sediments in the lake) and for evaluating the potential for COPCs at depth to migrate to surface sediments via natural or man made occurrences. It is premature to determine that these sediments, and those below, do not pose a potential risk.

Response # 3, to General Comment 19: The distribution of DDT, DDD, and DDE (DDX) at the Site do not appear uniform and there has been no presentation of regionally similar concentrations of those COPC's. The risk posed by the Voluntary Groups approach, to determine "background" values for DDX by conducting a literature search, is the literature search may not support the assumption that the COPCs are a result of a permitted application of DDT in the past. This would require a Phase 3 sampling event, or that the DDX present is a release from the facility. The existing data shows a range of three orders of magnitude for total DDT's and indicates there are elevated concentrations at depth and in surface soils. The data appears to show higher concentrations on the southern border of the facility, in the southern wetlands, and at depth in locations where there may have been historic sumps or disposal ponds. The western wetlands show low concentrations of DDX relative to other areas at the site, both in surface and subsurface soils. Since EPA has not seen the results of the local and regional literature search we are unable to evaluate whether it will support the conclusion that the presence of DDT and its breakdown products are from past application and not a release. The voluntary group may proceed with the proposed approach, but EPA retains the possibility that off-site sampling will be required. EPA would prefer the data depicting DDX ratios be presented by pie chart format versus bar charts. The pie charts should be included on figures to provide a spatial reference for the presence of DDT, DDD and DDE. Additional soil samples to define the horizontal and vertical extent of DDT, DDE, and DDD will be presented in specific comments.

Response # 4: An additional monitoring event of groundwater should be conducted to support the conclusion that there is no migration of contaminants in groundwater. Although there are few exceedances of COPCs in groundwater there may be seasonal

variations, and the presence of DDT compounds in groundwater is of concern. It is also prudent to have more than one monitoring event to characterize groundwater.

Phase 2 Sampling Data Gaps (if not already addressed above):

1) Fish Tissue Analysis: The response to Specific Comment # 7 does not fully address the comment or the need to determine whether fish tissues have elevated levels of COPCs from the Site. The use of modeling is not a substitute for empirical data. There are many reasons for obtaining actual tissue concentrations in order to accurately assess the risk posed to ecological receptors and humans who may eat the fish. A significant concern is modeling incorporates numerous uncertainty factors which may elevate the estimated risk when no elevated risk is actually present. Other significant concerns are the consumption of fish is a complete pathway for ecological receptors and human, therefore the need for empirical data is increased. Collection of fish tissue will also enable the collection of information on the fish resources of Force Lake, which may or may not support the presumption that there is an insufficient resource to pose a risk. The current approach relies too much on old (20 years) data and anecdotal evidence. In addition, both the Oregon Department of Health and the Oregon Department of Environmental Quality have requested fish data be collected due to reports of increased fishing pressure in the area.

2) Soil Sampling to characterize extent of contamination: There appears to be some subjective screening of when additional sampling is warranted due to elevated values in soils. For example, SL-33 is not proposed for pesticide analysis, but SL-25 exceeds the screening value and SL-12 is "elevated". Or: SL-41 does not include pesticide analysis but SL-22 and SL-23 exceed screening levels for pesticide at depth, and SL-24 exceeds PCB screening levels at depth. Please either clarify the logic or analyze for the analytes which exceed their screening values in surrounding locations in order to define the extent of contaminant exceedance.

3) Wetland Soil Sampling: There should be additional horizontal and vertical characterization of wetland soils when values exceed screening levels. This is particularly apparent near WS-20, 21, 24, 25, 31 and 33.

4) The Response to comment 19 only proposes that all metals will be analyzed. However, this is not consistent with what is presented in Table 6.1 which proposes the analysis of individual metals (AS, Pb, and HG) for selected samples. Since the laboratory generally analyzes for all metals, all results should be reported. Mercury is reported separately.

5) Response to Risk Scoping Comment 11b.: ODEQ anticipates their vapor intrusion guidance will be published shortly, the approach will rely on a multiple lines of evidence approach, versus strictly comparing values to groundwater or

soil concentrations. The RI should address the guidance recommendations if the guidance is published a few months prior to the Draft RI.

6) Response to comment 14 c of the Risk Scoping Memorandum: Please clarify the response. The intent of the comment was to screen wetland soils against sediment criteria in the event soils erode into the lake or the lake elevation changes. ODEQ has stated that their procedures are to evaluate soils directly adjacent to water bodies for the potential erode into the water bodies and become "sediments".

7) When presenting Total Petroleum Hydrocarbons, the gasoline range should be included with the total. There should also be maps for total and gasoline ranges presented in the RI.

8) It is our understanding that for the residential evaluations, the screening will be completed, and, if needed (based upon outcome of screening), the residential risk evaluation will be completed for both the adult and the child receptors as part of the baseline human health risk assessment.

9) Regarding the VG response to EPA comments #18d, and #19b,c on the Risk Characterization memo. The response is confusing regarding whether the pathways are considered complete, and their significance. Why would direct contact with soil for ecological receptors (shrews in particular) be insignificant? Regarding surface water ingestion, it can go either way at this preliminary point in the conceptual site exposure model. For conservative purposes, this pathway can be considered a complete pathway (significance should be determined).

10) In Risk Scoping comment 14.c, EPA requested comparison of wetland soil to bioaccumulative screening levels for sediment, and the VG has indicated that is not relevant to the soil exposure scenarios. DEQ would consider the soil in the wetland area bordering Force Lake to have the potential to erode into Force Lake and would therefore look at the sediment screening levels that were suggested. Application of the sediment criteria for ecological receptors is appropriate.